

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C.**

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MMB

In re:

RECEIVED

Amendment of Section 73.622 )  
Table of Allotments )  
DTV Broadcast Stations )  
Springfield, Illinois )

MM Docket No.

JUL 17 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

To: Chief, Allocations Branch  
Policy and Rules Division

**PETITION FOR RULEMAKING**

West Central Illinois Educational Telecommunications Corporation (known as "CONVOCOM"), by its counsel and pursuant to the *Public Notice*, in DA 99-2605, dated November 22, 1999, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel \*36 in lieu of TV Channel \*65 at Springfield, Illinois, and to continue to reserve the allocation for noncommercial educational use.<sup>1</sup> This substitution would serve the public interest because it would bring the first ever (and digital) public television broadcasting service to Springfield, Illinois. In addition, as the attached technical documentation demonstrates, CONVOCOM's proposal on DTV Channel \*36 will not cause impermissible interference to any other stations.

<sup>1</sup> By this *Public Notice*, the Mass Media Bureau announced a window filing opportunity to allow applicants with certain pending requests for new analog (NTSC) television stations on Channels 60-69 to file petitions for rule making to change allotments to a DTV channel below Channel 60. On January 29, 1996, CONVOCOM filed an application to construct a full service NTSC TV station on Channel \*65. This application remains pending at the Commission in FCC File No. BPET-19960129KH.

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## **Background**

CONVOCOM is an Illinois not-for-profit corporation, created in response to recommendations adopted by the Illinois Board of Higher Education in support of educational television services for the State of Illinois. To fulfill its educational television mandate, CONVOCOM operates a three-station noncommercial educational television network in west central Illinois, a substantial portion of which is otherwise unserved by public television.<sup>2</sup> CONVOCOM also operates TV translator station W65BV at Springfield, Illinois, which rebroadcasts Station WSEC(TV) and provides the state capital its only over-the-air public television service. The TV translator station in Springfield currently operates on an allotted NTSC frequency, Channel 65. Well over two years ago, CONVOCOM filed an application with the FCC to convert the translator facility to a full service NTSC station on Channel \*65. However, due to the reallocation of Channels 60-69, CONVOCOM's full service NTSC public television application can not now be processed for that channel and the TV translator is subject to displacement.

Consequently, CONVOCOM has located a new channel below Channel 60 for its new full service station at Springfield to avoid dismissal of its pending Springfield application. Due to a variety of circumstances, CONVOCOM is requesting a DTV channel as the replacement for the NTSC channel allotment, as permitted by the *Public Notice* in DA 99-2605, dated November

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<sup>2</sup> CONVOCOM is the licensee of the following noncommercial educational television stations: WMEC(TV), Macomb, WQEC(TV), Quincy, and WSEC(TV), Jacksonville, all Illinois.

22, 1999.<sup>3</sup> Accordingly, CONVOCOM now seeks to substitute DTV Channel \*36 in lieu of Channel \*65.

In support of this petition, CONVOCOM submits the following:

**The Substitution of DTV Channel \*36 at Springfield, Illinois Satisfies Technical and Regulatory Requirements**

The present proposal satisfies the minimum geographic spacing requirements with regard to all other analog TV stations and DTV stations, including DTV authorizations, applications, allotments and pending rule making proposals, as required by Section 73.623(d). See Engineering Statement, at 1. The reference coordinates for the proposed site are 39 36 50; 89 38 58.

In addition, as the attached engineering exhibit demonstrates, this request is in compliance with the community coverage requirements of Section 73.625(a).

Accordingly, the substitution of DTV Channel \*36 at Springfield complies with the requirements of Section 73.623 of the Commission's Rules.

**Substitution of DTV Channel \*36 at Springfield, Illinois, Would Provide Springfield with a Valuable Source of Noncommercial Educational Programming.**

The FCC decision in the *Report in Order*, in ET Docket No. 97-157 (released January 6, 1998) to reallocate Channels 60-69 for other services will result in the dismissal of CONVOCOM's pending full service TV Channel \*65 application, resulting in the unavailability of full-service over-the-air public television service in the state's capital city. Accordingly, substitution of DTV Channel \*36 in lieu of TV Channel \*65 in Springfield would provide the

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<sup>3</sup> See Advanced Television System and Their Impact upon the Existing Television Broadcast Service, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, 14 FCC Rcd 1348 (1998).

city with its first ever full service noncommercial educational television facility. Clearly, this channel substitution is in the public interest.

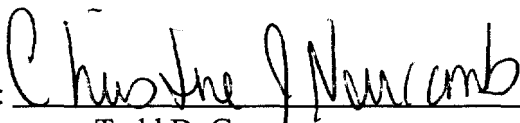
The Commission recognizes the value of local programming, especially in noncommercial, educational broadcasting. See, e.g., Educational TV Assignment at Terre Haute, Indiana, 19 RR 2d 1850, 1853 (1970) ("We have repeatedly announced our policy to further local programming in the broadcast services. Local programming is essential particularly in the field of education in that local programming can most effectively deal with the specific problems, needs, and interests in the community being served.")

### **CONCLUSION**

For all of these reasons, CONVOCOM requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel \*36 for TV Channel \*65 at Springfield, Illinois. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, CONVOCOM is committed to amending its pending application and constructing its new noncommercial educational station on DTV Channel \*36.

Respectfully submitted,

WEST CENTRAL ILLINOIS EDUCATIONAL  
TELECOMMUNICATIONS CORPORATION

By: 

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July 17, 2000



## ENGINEERING EXHIBIT

This Engineering Statement and the attached figures have been prepared by B. Benjamin Evans, P.E. of Evans Associates, Consulting Communications Engineers in Thiensville, Wisconsin, on behalf of West Central Illinois Educational Telecommunications Corporation ("CONVOCOM"). This exhibit supports a petition by CONVOCOM requesting amendment of Section 73.622 of the FCC Rules to substitute DTV Channel \*36 in lieu of analog TV Channel \*65 at Springfield, Illinois.

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Evans Associates has been retained by CONVOCOM, the petitioner, to prepare the engineering portion of a petition to substitute DTV Channel \*36 for analog TV Channel \*65 in Springfield, Illinois, and to reserve that channel for non-commercial use. Channel 65 is assigned to Springfield as a non-commercial NTSC channel. CONVOCOM currently operates a TV translator on Channel 65, W65BV, in Springfield, and also has an application on file to operate a full service NTSC station on Channel 65. However, Channel 65 is outside the FCC-designated core spectrum, and thus, CONVOCOM's translator and its pending application for the full NTSC facility are subject to displacement. CONVOCOM is requesting a DTV channel as the replacement for the NTSC channel allotment, as permitted by the *Public Notice* in DA 99-2605.

As a result of a channel search conducted by this engineer, it has been determined that UHF Channel 36 may be assigned to Springfield, Illinois as a DTV assignment, without conflicting or causing interference to any existing NTSC or DTV assignments.

The reference point coordinates of Springfield are:

N. 39°-48'-00"; W. 89°-38'-54"

The assignment of DTV Channel 36 to Springfield will meet the minimum distance separation requirements of §73.623(d) of the FCC Rules if the transmitter site is located at least 20.8 kilometers south of Springfield (see Figure 1, attached).

The transmitter site coordinates assumed for the purpose of this petition for rule making are:

N. 39°-36'-50"; W. 89°-38'-58"




*Engineering Statement – Page 2*  
*DTV Assignment, Springfield, IL*

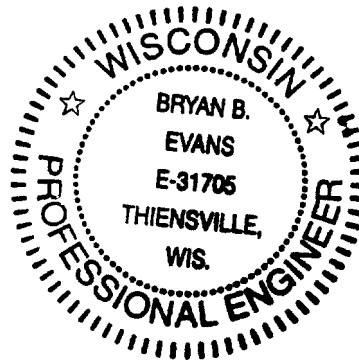
For stations that warranted further interference study, this engineer has conducted interference studies in accordance with §73.623(c) to determine if interference would be caused by a DTV station operating on Channel 36 at the previous-mentioned coordinates. It has been assumed that the DTV station operates with 100 KW ERP using an antenna height of 152 meters AGL (335 meters AMSL). These studies are shown in attached Figure 2. As seen on these pages, the DTV station is predicted to cause no interference to the services areas of the other stations.

From the assumed transmitter location, compliance with the community of license coverage requirement (41 dBu contour) would be assured. Figure 3 is a map showing the predicted 41 dBu contour of the DTV facility operating at the above-mentioned parameters. The rectangle represents the north-south and east-west extremes of the city boundaries of Springfield. As can be seen, the supposed DTV station on Channel 36 would easily serve the city of Springfield.

The foregoing statement and attached figures are true and accurate to the best of my knowledge and belief.



B. Benjamin Evans, P.E.



July 13, 2000

**ATTACHED FIGURES**

- Figure 1 - - - - DTV Channel Spacing Study – Channel 36, Springfield, IL  
Figure 2 - - - - Interference Studies as per §73.623(c)  
Figure 3 - - - - Community of License Coverage Study

**Figure 1**

## DTV CHANNEL SPACING STUDY

### Channel 36, Springfield, Illinois

Job title: Springfield IL  
Proposed latitude: N 39 36 50.00  
Proposed longitude: W 89 38 58.00  
Database file name: E:\Ben\FCCDB\Tv000603.edx  
Proposed zone: 1

A \* next to a distance result indicates the proposed location  
is inside the exclusion range for a DTV adjacent channel

Proposed channel: 36

CH	Call	Record	City	ST	Z	Status	Bear.	Dist.	Reqd. Dist.	Result
36	WTWO	5427	TERRE HAUTE	IN	1	CP	101.3	198.8	196.3	2.5
36	WTWO_DT	5436	TERRE HAUTE	IN	1	ALLOC	101.3	198.8	196.3	2.5
21o	ALLOTM	6028	VANDALIA	IL	1		146.6	86.8	80.5	6.3
43o	WYZZ-TV	6051	BLOOMINGTON	IL	1	LIC	19.1	121.4	80.5	40.9
43o	WYZZ-TV	6052	BLOOMINGTON	IL	1	CP	19.1	121.4	80.5	40.9
35	KSDK	6348	ST LOUIS	MO	2	LIC	207.1	130.3	110.0	20.3
40-	ALLOTM	6365	ST. LOUIS	MO	2		202.8	120.0	80.5	39.5
35	KSDK_DT	6381	ST. LOUIS	MO	2	ALLOC	207.1	130.3	110.0	20.3
22+	WMEC	6395	MACOMB	IL	1	LIC	316.1	126.3	80.5	45.8
22+	WMEC	6396	MACOMB	IL	1	APP	313.8	127.0	80.5	46.5
36+	KQCT	6408	DAVENPORT	IA	2	LIC	340.1	227.1	217.3	9.8
36+	KQCT	6409	DAVENPORT	IA	2	CP	342.2	217.4	217.3	0.1
35+	ALLOTM	6574	BOWLING GREEN	MO	2		257.7	136.8	106.0	30.8
36	KOMU-TV	6870	COLUMBIA	MO	2	APP	251.1	239.6	196.3	43.3
36	KOMU-TV	6871	COLUMBIA	MO	2	CP	251.1	239.6	196.3	43.3
36-	ALLOTM	6898	JEFFERSON CITY	MO	2		242.9	246.8	217.3	29.5
36-	960920YX	6899	JEFFERSON CITY	MO	2	APP	251.1	239.6	217.3	22.3
36	KOMU_DT	6908	COLUMBIA	MO	2	ALLOC	251.1	239.6	196.3	43.3

\*\*\*\*\* End of channel 36 study \*\*\*\*\*

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DTV CHANNEL STUDY

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Job title: Springfield IL  
 Subject station call: WTWO  
 Channel: 36  
 Station type: DT  
 Latitude: N 39 14 33.00  
 Longitude: W 87 23 29.00  
 Antenna elevation(AMSL): 416.0 meters  
 Maximum ERP: 10.0000 kW  
 Database file name: E:\Ben\FCCDB\Tv000603.edx  
 Proposed offset:  
 Proposed zone: 1  
 Calculation method: Radial line  
 Centroid method: population-biased

Interfering stations considered:

Call	Channel	Type	Status	Distance(km)	Bearing(degs.)
prop_TX	36	DT		198.8	282.7

Service without interference:

Area (sq. km): 12291.1  
 Population (persons): 313663

Service with interference:

Area (sq. km): 12291.1  
 Population (persons): 313663

FCC kwx=3 Interpretation:

Area of unserved cells declared served (sq. km.): 0.0  
 Population of unserved cells declared served: 0

Noise-limited contour (40.9 dBuV/m):

Area inside noise-limited contour (sq. km): 12341.7  
 Population inside noise-limited contour: 310708



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DTV CHANNEL STUDY

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Job title: Springfield IL  
 Subject station call: KSDK  
 Channel: 35  
 Station type: DT  
 Latitude: N 38 34 5.00  
 Longitude: W 90 19 55.01  
 Antenna elevation(AMSL): 496.0 meters  
 Maximum ERP: 838.0000 kW  
 Database file name: E:\Ben\FCCDB\Tv000603.edx  
 Proposed offset:  
 Proposed zone: 2  
 Calculation method: Radial line  
 Centroid method: population-biased

Interfering stations considered:

Call	Channel	Type	Status	Distance(km)	Bearing(degs.)
prop_TX	36	DT		130.3	26.6

Service without interference:

Area (sq. km): 31242.9  
 Population (persons): 2735507

Service with interference:

Area (sq. km): 31242.9  
 Population (persons): 2735507

FCC kwx=3 Interpretation:

Area of unserved cells declared served (sq. km.): 0.0  
 Population of unserved cells declared served: 0

Noise-limited contour (40.8 dBuV/m):

Area inside noise-limited contour (sq. km): 31475.9  
 Population inside noise-limited contour: 2739641

Figure 2-C

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DTV CHANNEL STUDY

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Job title: Springfield IL  
Subject station call: KQCT  
Channel: 36  
Station type: TV  
Latitude: N 41 28 29.01  
Longitude: W 90 26 44.99  
Antenna elevation(AMSL): 297.0 meters  
Maximum ERP: 302.0000 kW  
Database file name: E:\Ben\FCCDB\Tv000603.edx  
Proposed offset:  
Proposed zone: 2  
Calculation method: Radial line  
Centroid method: population-biased

Interfering stations considered:

Call	Channel	Type	Status	Distance(km)	Bearing(degs.)
prop_TX	36	DT		217.4	161.7

Service without interference:

Area (sq. km): 6733.9  
Population (persons): 384715

Service with interference:

Area (sq. km): 6733.9  
Population (persons): 384715

FCC kwx=3 Interpretation:

Area of unserved cells declared served (sq. km.): 0.0  
Population of unserved cells declared served: 0

Noise-limited contour (63.9 dBuV/m):

Area inside noise-limited contour (sq. km): 6790.5  
Population inside noise-limited contour: 396118

SIGNAL™: springfield.map

Prop. model: FCC-FCC  
Time: 90.0% Loc.: 50.0%  
Prediction Confidence Margin: 0.0dB  
Climate: Continental Temperate  
Land use (clutter): none  
Atmospheric Abs.: none  
K Factor: 1.333  
RX Antenna - Type: OMNI  
Height: 2.0 m AGL Gain: -2.15 dBd

Field strength at remote

■ = 41.0 dBμV/m

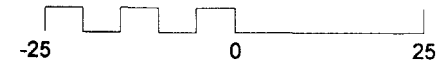
Display threshold level: -200.0 dBmW

Reference Grid (spacing: 30')

Sites

Site: DTV-36  
N39°36'50.00" W89°38'58.00" 182.9 m  
DTV36 Tx.Ht.AGL: 152.4 m ERPd: 50.00 dBW  
Grp: 1 Omni-HH/0.0° 605.0000 MHz

KILOMETERS



DTV Ch. 36 Springfield IL

Predicted 41 dBu of an Assumed Facility

Figure 3

July 13, 2000

7  
N

Springfield



DTV-36

41 dBμV/m

N39°00'00.00"

W90°30'00.00"